

REMARKS

In accordance with 37 C.F.R. § 1.111, Applicant respectfully requests reconsideration, in light of the claim amendments presented above and the following remarks, of the claim rejections set forth in the non-final Office Action dated November 9, 2009 (the “Office Action”).

I. Claim Objections – 37 CFR § 1.75(c)

Claims 4, 14, 18 and 28 were objected to pursuant to 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 4 and 18 were amended to obviate the claim rejections. Claims 14 and 28 were cancelled.

II. Claim Rejections – 35 U.S.C. § 103(a)

Claims 1, 4, 5, 7, 14, 15, 18, 19, 21, and 28 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Marian (U.S. Patent No. 5,913,688) in view of Kaczmarek et al. (U.S. Patent No. 6,542,577). Claims 8, 12, 22, and 26 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Marian in view of Kaczmarek et al. and Rockwood et al. (U.S. Patent No. 6,316,768). Claims 9 – 11 and 23 – 25 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Marian in view of Kaczmarek et al. and Powell (U.S. Patent No. 6,931,723). Claims 13 and 27 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Marian in view of Kaczmarek et al., Rockwood et al., and Tilton et al. (U.S. Patent No. 6,108,201).

Independent claim 1 has been amended to incorporate the limitations of dependent claims 12 and 13. Amended claim 1 recites a pressure plate that contacts an underside of the printed circuit board and presses the printed circuit board against a seal.

As stated in the Office Action, Marian, Kaczmarek et al., and Rockwood et al. do not disclose “a pressure plate [that] contacts the underside of the printed circuit board and presses the printed circuit board against the seal.” *See*, Office Action, p. 10.

Tilton et al. also fails to disclose a pressure plate that contacts an underside of the printed circuit board and presses the printed board against a seal, as recited in claim 1. As shown in Fig. 5, Tilton et al. discloses a fluid control shroud 20 for controlling fluid that “cools one or more heat-generating components.” *See*, col. 3, lines 10-15. The fluid control shroud 20 is attached to the printed circuit board 200 using a “fastening means.” *See*, col. 3, lines 38-40. The fastening means includes a pressure plate 506 and a backing plate 508. *See*, col. 4, lines 35-55. According to Tilton et al, the backing plate 508 is located on a second side of the printed circuit board 200 opposite interface pad 504. *See*, col. 4, lines 51-52. The backing plate 508 is used to secure the walls 402 of the shroud such that the walls 402 control the fluid flow toward the heat generating components (e.g., integrated circuits 220). Tilton et al. does not disclose the printed circuit board pressed against a seal. Tilton et al. discloses the printed circuit board pressed against the interface pad 504. *See*, col. 4, lines 45-47 and Fig. 5. The interface pad 504 is configured such that the fluid can flow through the discharge slot openings 406. Tilton et al. does not disclose a seal and thus does not disclose a printed circuit board pressed against a seal.

Accordingly, the combination of Marian, Kaczmarek et al., Rockwood et al., and Tilton et al. fails to disclose a pressure plate that contacts an underside of the printed circuit board and presses the printed circuit board against the seal because none of the cited references disclose the claimed subject matter. Therefore, amended claim 1 is allowable

over the cited references because Marian, Kaczmarek et al., Rockwood et al., and Tilton et al., either alone or in combination, fail to disclose the claimed subject matter.

Furthermore, claim 1 is also allowable over the cited references for additional reasons that are independent of those discussed above. Accordingly, Applicant respectfully requests independent consideration of the following remarks. Claim 1 is allowable over the cited references because the combination of Tilton et al. with Marian, Kaczmarek et al., and Rockwood et al. would render the cited references unsatisfactory. As shown in Fig. 5, Tilton et al. disclose “one or more discharge slot openings 406.” The discharge openings allow effluent 126 (e.g., excess mist) to exit the chamber 404. “The size, location and distribution of the discharge openings may be selected with reference to the nature and distribution of adjacent components.” See, col. 4, line 63 – col. 5, line 1. The other cited references, Marian, Kaczmarek et al., and Rockwood et al., disclose liquid tight housings. A person of ordinary skill in the art would not have used the unsealed structure of Tilton, et al. with the sealed embodiments of Marian, Kaczmarek et al., and Rockwood et al. Accordingly, independent claim 1 would not have been obvious in light of Tilton et al.

Claims 4, 5, and 7-11 depend, either directly or indirectly, from allowable claim 1 and are allowable for at least this reason. Further limitations of the dependent claims are allowable over the cited references, either alone or in combination.

For example, the cited references fail to disclose the pressure plate presses the printed circuit board against the seal such that printed circuit board is the liquid-tight closure that prevents the coolant oil from flowing outside of the housing, as recited in claim 4. Accordingly, claim 4 is also allowable for at least this reason.

Amended independent claim 15 recites disposing a pressure plate that contacts an underside of the printed circuit board to press the printed circuit board against the seal. As discussed above, Marian, Kaczmarek et al., Rockwood et al., and Tilton et al. all fail to disclose a pressure plate that contacts an underside of the printed circuit board and presses the printed board against the seal. Therefore, claim 15 is allowable over the cited references.

Dependent claims 18, 19, and 21-25 depend, either directly or indirectly, from claim 15 and are allowable for at least this reason. Further limitations of the dependent claims are allowable over the cited references, either alone or in combination.

For example, the cited references fail to disclose mounting the pressure plate on the housing to press the printed circuit board against the seal such that the printed circuit board is the liquid-tight closure, as recited in claim 18. Accordingly, claim 18 is also allowable for at least this reason.

Conclusion

For at least the reasons presented above, the Applicant respectfully submits that the pending claims are in condition for allowance.

The Examiner is respectfully requested to contact the undersigned in the event that a telephone interview would expedite consideration of the application.

Respectfully submitted,



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